

# **Simulation of Curtain Grouting Based on Digital Hydrogeological Site Model of the LLW and ILW Disposal Location**

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The article presents results of artificial curtain grouting simulation analysis of the LLW and ILW disposal site location in the Kola Peninsula suggested by the authors for the purpose to prevent natural water entities contamination. Specified lakes are situated on the way to potential contamination distribution from the RAW disposal in location variants 6C or 5C [1].

The authors have considered several variants of curtain grouting location: by variation in depth of zones with low conducting properties (porosity 0.001 and filtration coefficient  $10^{-10}$  m/sec) as well as the by value of filtration coefficient. It occurred that to reduce contamination (approximately by an order) in dangerous direction it is necessary to make curtain grouting with vertical size at least three times higher of contamination source height. Additionally there have been calculated and analyzed dilution factor sensitivity coefficient in the area of water entities under investigation depending on conducting properties of curtain grouting.

## **References:**

1. Amosov P.V., Novozhilova N.V. Digital Hydrogeological Model of LLW and ILW Disposal Site in the Kola Peninsula (see present conference publications)